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AN

INAUGURAL DISSERTATION,

ON THE

RHEUMATIC STATE OF FEVER;

SUBMITTED TO THE EXAMINATION OF

THE REV. JOHN EWING, S.T.P. PROVOST:

THE

TRUSTEES AND MEDICAL FACULTY

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TO

DAVID RAMSAY, M. D.

THIS DISSERTATION IS INSCRIBED,

AS A TRIBUTE OF RESPECT AND ESTEEM,

FROM HIS

VERY SINCERE FRIEND,

AND

AFFECTIONATE PUPIL,

EDWARD NORTH.

PREFACE.

IT is with diffidence that I now ſtep forward in the literary world to advance a ſubject for public inſpection; but ſuch is the cuſtom of this univerſity, that it is always required of thoſe in ſimilar ſituations; and is at the preſent not to be diſpenſed with.

Conſcious of my inability in this arduous undertaking, and the ſmall experience I have had ſince the commencement of my ſtudies, cauſes emotions not eaſily ſurmountable, but on reflecting that it is abſolutely requiſite, and not through choice, that I advance this inaugural, excites my proceeding to effect a conſummation, as incorrect as it may appear to men of erudition.

My firſt propenſity to imitation proceeds rather from motives of modeſty than vanity, for perceiving how deficient I am in my own production, muſt endeavour to mend my com-

poſition by copying the capital ſtrokes of others; ſo, therefore, hope it will not be deemed preſumptive; and ſhall, in as laconic and ſatisfactory a manner as my abilities will admit of, attempt an elucidation of the cauſe, ſymptoms, and method of cure of Rheumatiſm.

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TO attempt a definition of a diſeaſe, on which ſo many illuſtrious characters have already entered, may in my youth and inexperience be deemed effrontery, for with regard to the hiſtory of diſeaſes, whoever conſiders the undertaking deliberately, muſt be fully perſuaded of the diſadvantages that an early publication muſt labour under.

Falſe theories in medicine, without the ſmalleſt ſhadow of ſupport, in the place of theory well eſtabliſhed, have hitherto much prevailed, particularly among authors of ancient date; moſt of their writings were founded on hypotheſis, and the reſult of a luxurious imagination:—The ſymptoms of diſeaſes (where-

in their true hiſtory conſiſts) as deſcribed by them, appear to be chiefly deduced from the ſame ſource. But happily for mankind in general, phyſicians, by their indefatigable diligence and perſeverance, are daily convinced of the abſurdity of the aſſumption of ſuch principles as at one time prevailed among empyrics, unſupported by facts and experience, and yet, on this weak foundation, attempted to regulate the conduct of their practice by the erroneous guidance of falſe doctrines, which materially injured the public in general, and tended greatly to augment, rather than diminiſh, the peſtilence of ſuch diſeaſes.

For the advancement of this noble ſcience, poſterity will ever conceive herſelf greatly indebted to the ſagacious Sydenham, Hunter, Ruſh and others, who, by their perſpicuity and perſeverance in purſuit of knowledge, have drawn aſide the curtain which obſcured the various phenomena of many diſeaſes, and developed for the benefit of their cotemporaries, as well as ſucceſſors, all thoſe genera or ſpecies of diſeaſe, as have been hitherto viewed as an obſcure and intricate labyrinth.

But, even at this preſent age may we conceive ourſelves infeſted by darkneſs, for innumerable are the obſtacles with which we have

yet to encounter, and much is ſtill to be diſcovered, before we can arrive to that acme of perfection, which may enable us to extirpate a malignant diſorder, with as much facility as a ſlight inflammatory fever may be eradicated, by depleting remedies, judiciouſly adminiſtered.

Nature's procedure in many diſeaſes, is, in reality, ſo various, uncertain, and ſubtile, in the production of them, that the oldeſt and moſt experienced phyſician in exiſtence, is ſcarcely adequate to the taſk of ſcientifically deſcribing their different ſymptoms and proper method of cure.—In contemplating this, it is not to be ſuppoſed that an unexperienced ſtudent ſhould attempt an inveſtigation of any thing new, after the enquiries of ſo many eminent practitioners, for this would inevitably tend to lay him open to the criticiſm of a populous, who, perhaps, would not view its incorrectneſs with that favourable eye, which any in a ſimilar ſituation may have reaſon to expect.

OF RHEUMATISM.

Noſologiſts have ſubdivided this diſeaſe into two genera or ſpecies; to one is given the appellation of Acute, and to the other Chronic Rheumatiſm. The latter I ſhall at preſent make a few curſory remarks on, but the for-

mer ſhall be more particularly treated of in the ſubſequent pages of this diſſertation.

An attack of chronic rheumatiſm may always be diſtinguiſhed by its conſiſting of obſtinate pains of the joints, and muſcular fibres, without any conſiderable degree of pyrexia, and oftentimes totally deſtitute of it. When pyrexia occurs, it is attended with* an exceſs of action in the ſanguiferous ſyſtem, but when no pyrexia occurs, a defect of action takes place, which moſt generally happens in the atonic ſtate of it, and appears to be a ſtage between gout and the tonic ſtate, and is ſometimes remarked to be the ſequel of the latter; but often occurs without it, attended with a continued ſtiffneſs and uneaſy ſenſation in the part affected, which is promoted by viciſſitudes of the weather, or on the diſeaſed limb being put in the leaſt motion.

The acute rheumatiſm is indicated by a chillineſs and ſhivering, which are immediately ſucceeded by heat, reſtleſſneſs and thirſt, together with other concomitants of pyrexia, particularly by a frequent, full, and hard pulſe;

* There are two ſtates of action to be obſerved in this diſeaſe, viz. tonic and atonic. If tonic, the antiphlogiſtic regimen muſt be purſued; but if atonic occurs, generous diet muſt be had recourſe to.

in the courſe of a day or two, and ſometimes ſooner, the patient is afflicted with an acute pain in ſome one or other of the limbs, but more particularly in the wriſts, ſhoulders, and knees, affecting thoſe parts alternately, ſometimes abating in one joint and becoming more acute in another, attended with excruciating pain, darting along the courſe of the muſcles, which is always promoted by the action of them, leaving a redneſs and ſwelling upon the part laſt affected.

The pain in the joints after having continued for ſometime, becomes extremely ſuſceptible of touch, but when ſucceeded by a ſwelling, it ſeldom occurs that it has not a tendency to mitigate the pain, though it does not always entirely relieve, nor ſecure the joint againſt a return of it.

In the advancement of the diſeaſe, more conſiderable remiſſions attend the pyrexia,* the urine becomes high coloured, and a lateritious ſediment is depoſited, which does not occur in the commencement of rheumatiſm. Though this diſeaſe evidently bears a ſtrong analogy to all the other ſpecies of inflammation,† yet it differs from them eſſentially by

* Cullen's Firſt Lines, vol. 1.

† Ditto.

not terminating in ſuppuration, which almoſt never happens in rheumatiſm as often as in other inflammations, though it does ſometimes take place, as is remarked by Storck; vide Ann. Med. 2.—There came a caſe, not long ſince, under my own obſervation, that terminated likewiſe in ſuppuration, the ſore that attended this, was extremely difficult to heal. This diſeaſe occurs at any ſeaſon of the year, but more particularly in the ſpring and autumn, and is much more prevalent in cold than warm climates. It generally makes its appearance in the ſpring, after the body has been much debilitated by extreme cold, and is chiefly confined to thoſe in the prime of life, and of a robuſt, plethoric conſtitution.

In the winter, when the cold is conſiderable, and permanent, it ſeldom occurs; but if heat and cold alternate, and the viciſſitudes frequent, it is obſerved to affect perſons of all ages, but if otherwiſe, ſeldom affects young, or perſons far advanced in life, being generally confined from the age of puberty, to that of thirty-five years, and to thoſe who are of a ſanguine temperament.

There are ſeveral different affections of rheumatiſm, which noſologiſts have hitherto conſidered as ſeveral ſpecies of diſeaſe, and conceived it of immenſe importance to diſcriminate one

from another, as lumbago, when a violent fixed pain occurs in the vertebræ of the loins, reaching ſometimes to the os ſacrum, attended with nephritic paroxyſms, but may be always diſtinguiſhed from this, by its not being attended with vomiting; and further, if the muſcles of the back are put into motion by ſtooping, riſing, or contorting the body in any form whatever, with the ſmalleſt degree of quickneſs, the pain is greatly promoted; and ſometimes ſo violent as to check the effort in performing ſuch action, which, in nephritic complaints, very ſeldom, or never takes place.

If any acute pain is induced in the hip, and extends itſelf down the thigh, it is then termed iſchias, or ſciatica; but as ſub-diviſions of this nature evidently appear ſuperfluous, I ſhall notice them under one general head, as it is incontrovertible that they all proceed from the ſame cauſe, viz. An exceſs of irregular action in the arterial ſyſtem,* as is confirmed by their concomitants, and eſpecially by the colour of the blood extracted, ſtrongly reſembling that of perſons in a pleuriſy, which is univerſally acknowledged to be a highly inflammatory diſeaſe.

* The opinion of the Profeſſor of the Inſtitutes of Medicine.

In an undertaking of this kind, I truſt not on my own judgment, as this would be but a weak and uncertain foundation, to attempt a controverſion of various opinions on this ſubject, but am actuated by the verification of daily occurrences, and practice has ſtrongly confirmed the rectitude of this procedure; for the ſagacious and more accurate obſervers of later date, have corroborated the propriety of this ſyſtem, by advancing, for the benefit of mankind, all thoſe caſes which have come under their notice, together with the theory which was adopted to effect a cure, or at leaſt a mitigation of this diſeaſe.

DIAGNOSIS.

In treating of the pathognomonic ſymptoms of the rheumatic ſtate of fever, it is eſſentially requiſite to inveſtigate minutely thoſe occurrences, which particularly tend to characterize it from all other diſeaſes, with which it is frequently blended by the young and unexperienced, as it has been often verified that an erroneous judgment in the nature of a diſeaſe has terminated with the moſt ſerious calamity, and blaſted at once the reputation of the unfortunate practitioner. So, therefore, I ſhall attempt a definition of its ſymptoms, thinking that ſome facts here inſerted, may be acceptable to

thoſe, who may peruſe theſe few ſheets, as inaccurate as they are delivered.

This diſeaſe has been oftentimes miſtaken for gout, though different in many reſpects, for in a recent gout the pain is ſeated in the ſurface of the ligaments, and is confined to the affected joint, whereas the pain in rheumatiſm ſhoots along the courſe of the muſcles from one joint to another, and is greatly increaſed by the action of them.* It varies alſo in this reſpect, that the pain attendant on gout is generally tearing, pungent, and threatens the burſting of the parts affected, which does not take place in rheumatiſm.

Rheumatic affections ſometimes attack perſons not oftener than once or twice throughout their lives, prove not very durable, and are in general eaſily cured, when judiciouſly treated; but the gout returns more frequent, proves more painful, continues much longer, and is remarked to be more difficult of cure. Excluſive of the above diſcrimination, the gout ariſes from ſome internal cauſe, and is generally preceded by flatulence, indigeſtion, or ſome affection of the ſtomach, and is confined to the ſmaller joints, rather than the larger. The

* Hoffman, vol. 2.

parts affected are remarked to be more exquiſitely ſuſceptible of impreſſion than rheumatic complaints,* and the retroceſſion to the internal parts more common, creating there, affections more excruciating and dangerous.

Scorbutic and venereal affections are ſometimes blended with rheumatiſm, but may be eaſily diſcerned from them by attending particularly to the concomitants of each. Scorbutic habits are always afflicted with a nauſeous diſagreeable ſmell from the mouth, attended ſometimes with profuſe hæmorrhages from the gums, and cutaneous eruptions in different parts of the body, which never happen in rheumatic caſes.

Venereal pains are generally confined to the moſt centrical part of the affected bone, whereas rheumatiſm is well known to attack the joints more particularly, by which means it may be always diſtinguiſhed from this diſeaſe. Having ſufficiently enumerated the various ſymptoms incident to thoſe diſeaſes with which rheumatiſm is oftentimes confounded, I ſhall now proceed to conſider the different parts requiſite to effect a due completion of this diſſertation, as mentioned heretofore in the preliminary diſcourſe.

* Sydenham, vol. 1.

OF THE REMOTE CAUSES.

The remote cauſes are all thoſe, which tend to induce debility in the ſyſtem generally or partially. This debility is ſubdivided into *direct* and *indirect*; the *former* is brought on by the uncommon abſtraction of the natural ſtimuli, which keep up or ſupport life, the *latter* by an undue application of them. Under the firſt claſs, or direct debility, may be comprehended, I. Cold, that this proves debilitating, I infer, 1ſt. From the exceſſive laſſitude and languor which generally attends labour in cold countries. 2d. From its particular effects on the pulſe, as the pulſe of the Greenlanders beats only from forty to forty five ſtrokes in the courſe of a minute, whereas that of perſons who inhabit more ſouthern latitudes, or live in a warmer temperature, beat from ſeventy to ſeventy five. II. Exceſſive evacuations of any kind, whether from the blood-veſſels, bowels, or ſkin; this is corroborated by a fact made mention of by Dr. Niſbett, which came under his own inſpection, where the patient was attacked with violent rheumatic pains, from a long continued uſe of mercurial medicines. III. Moiſture combined with cold has a very great influence in producing this diſeaſe, which is taken notice of by Sir John Pringle, who obſerves that "the interchanges of heat and cold, joined to the moiſture inſeparable from tents, could not but

affect more particularly thoſe conſtitutions leſs accuſtomed to the field; accordingly many were ſeized with inflammatory diſorders of ſundry forms," this is remarked by various authors, which I might adduce, but the authenticity of the above quotation renders it unneceſſary, and I ſhall now proceed with offering a few curſory remarks on ſome of thoſe cauſes which come under the ſecond order, or ſuch as induce indirect debility; of theſe are, I. Heat; this, when applied in a moderate degree, proves gently ſtimulating, and conduces to a healthy excitement, but if exceſſive in degree, and long continued, proves a frequent cauſe of indirect debility, inducing languor and laſſitude, particularly when combined with hard labour. II. Violent exertion of any kind, when carried on ſo as to occaſion fatigue, is likewiſe a very fruitful ſource of rheumatiſm, hence the liability of ſailors and labourers to this diſeaſe. III. Intemperance in eating and drinking. IV. Exceſs in venery, and alſo all ſuch cauſes as produce debility in the ſyſtem, directly or indirectly, have a great ſhare in creating morbid excitement, or convulſive action in the arterial ſyſtem.

OF THE PREDISPOSING CAUSE.

Rheumatiſm, like all other ſtates of fever, I may ſay like all other diſeaſes, depends upon pre-

diſpoſing debility, and this, when once induced, occaſions prediſpoſition, which is attended with an increaſed excitability, or ſuſceptibility in the ſyſtem to receive impreſſion, and as it is univerſally acknowledged that cold produces diminiſhed action or direct debility, ſo, I think, we may the more readily explain the greater frequency of this diſeaſe in the ſpring ſeaſon, after the excitability of the ſyſtem has been much accumulated throughout the preceding winter, as whatever has a tendency to debilitate the body, leaves it much more liable to be acted upon by ſtimuli.

We may here infer the great neceſſity of proportioning ſtimulus to excitability, for it is a law of the animal œconomy, that diſproportioned ſtimulus ſhould occaſion convulſive action, which oftentimes terminates in death. Dr. Stedman relates a caſe juſt in point, where he obſerves, that thirty drops of Laudanum produced death in a young man, who had been previouſly debilitated by the exceſſive evacuation cauſed by taking a vomit. Probably the exhibition of this at any other period, might have been an ordinary doſe, and attended with no ill conſequences, but on account of its being injudiciouſly adminiſtered, proved the cauſe of ſo unexpected and melancholy a cataſtrophe — There came, not long ſince, a caſe under my own obſervation, of a ſimilar nature, where blood-letting was adminiſtered to the amount

of only ten ounces, when the patient felt a diſpoſition to faint, there was immediately ordered a glaſs of wine diluted with a ſmall quantity of water to be given her, which ſhe drank, and in the courſe of a ſhort time after, was attacked with fever and delirium, which required ſeveral ſucceſſive bleedings to ſubdue it.

Theſe at once clearly demonſtrate to me, the great diſpoſition there is attendant on debility in the ſyſtem, to receive impreſſion; and points out to us, how circumſpect we ſhould be at all times, in conſidering the adjuſtment of ſtimulus to the ſtate of the ſyſtem.

Conſiderable changes in the air are extremely prejudicial, whether from heat to cold, or vice verſa. Moſt authors bear teſtimony to this; and thoſe who have written on uniformly hot climates obſerve, that rheumatiſm or inflammatory diſeaſes are ſeldom prevalent among the inhabitants of them. From this it appears that inflammatory diſeaſes would as ſeldom occur in more northern latitudes, were they to adapt ſtimulus to excitability. But in lieu of this, how diametrically oppoſite do we find their conduct, for the vulgar are generally led away with an idea, that nothing affords them greater relief, after having become much debilitated by the extreme ſeverity of the cold, than a few glaſſes of ſpirituous liquors, to warm and ſtrengthen their ſtomachs, as they term it, as

well as to ſupport life, and exhilerate their ſpirits.—How erroneous an opinion; as this alone, is oftentimes the origin of the moſt inflammatory diſeaſes, that infeſt mankind; for we are fully convinced that the diſproportioned ſtimulus is by far too great, for the excitability morbidly accumulated by the expoſure of the body to cold air.

OF EXCITING CAUSES.

It is contrary to the laws of human nature, that diſeaſe ſhould ariſe in the ſyſtem, after prediſpoſition is effected, without the intervention of ſome exciting cauſe, for how frequently do we obſerve perſons labouring under prediſpoſition, and when no cauſe is applied to throw the ſyſtem into convulſive or morbid action, generally called diſorder, return to their former ſtate of health, without any ill conſequences attending thereon.

Phyſicians, for a ſeries of years, imagined debility to be truly a diſeaſe, but ſome by more particularly attending to the nature and origin of diſeaſes, have ſtrongly eluded the fallacy of ſuch doctrine, and clearly evinced to the world that it is no other than the true *prediſpoſing cauſe* to the various denominations of the diſeaſes which mankind are incident to.

Viewing the ſyſtem, then, in a ſtate of extreme debility, and its excitability greatly accumulated, we may at once anticipate the influence of the vernal ſun, or any diſproportioned ſtimulus applied. The effect of this muſt inevitably be that of occaſioning morbid action, which is, as Dr. Ruſh happily expreſſes it, "the eſſence of a diſeaſe, whether ſituated in the arterial, nervous, lymphatic, or any other ſyſtem."

The application of heat is a very frequent exciting cauſe of this diſeaſe, which is verified in children experiencing immediate pain in their hands and fingers on approaching the fire, after having them expoſed for ſome conſiderable time to the cold, and which may juſtly be termed an inflammatory rheumatiſm. Stove-rooms have frequently confirmed the truth of this aſſertion, when their temperature has been ſeveral degrees above that of the atmoſphere, for the ſuſceptibility of the ſyſtem is at times rendered ſo extremely acute, that any ſtimulus applied is ſufficient to induce an highly inflammatory diſorder; this has oftentimes occurred in hoſpitals, where invalids have previouſly laboured under chronic diſeaſes, which have in the ſpace of a very ſhort time, terminated in the moſt acute inflammatory diſorders, through the medium

of no other cauſe, than the gentle ſtimulus of a warm room.

Spirituous liquors are a frequent ſource of this diſeaſe, they have occaſioned, and ſtill continue to occaſion, an innumerable train of ills to the human race. "They are, when immoderately uſed, to perſons, what manure is to vegetation, which haſtens the progreſs of the fruit, but deſtroys the plant." This diſeaſe, as well as moſt other inflammatory diſorders, is too frequently the effect of that deteſtable cuſtom, the exceſs of drinking ſpirituous liquors. For my part, I think a proportionate and moderate uſe of them, would, perhaps, be rather ſalutary than otherwiſe; but, as Zimmerman obſerves, there are but few men, who know how to uſe them with diſcretion. There are many other facts to prove in the moſt clear and decided manner, the prejudicial effect of hard drinking, but the above, I preſume, quite ſuffices to corroborate my opinion.

OF THE PROXIMATE CAUSE.

It has been the occupation of phyſicians, for ages paſt, to inveſtigate the nature and cauſe of diſeaſes, and according to the diſcovery of the proximate, have they generally adapted their method of cure.

It was ſome time before they perfected an agreement among themſelves, with regard to the proximate cauſe of this diſeaſe; for it was formerly held in opinion by Dr. Macbride, "That Rheumatiſm originated from a peculiar acrimony, nearly allied to the gout," and by many has been conjectured "to* ariſe from a lentor of the fluids obſtructing the veſſels of the part affected," while Dr. Cullen has attributed it to a ſpaſm of the extreme arteries, and is of opinion that "the moſt common remote cauſe is uſually the ſame with that of other inflammations, not depending upon a direct ſtimulus." To confute the above doctrine, reſpecting acrimony being the cauſe of this diſeaſe, I need make only one obſervation, which is, there has never been diſcovered any thing like an acrimony exiſting in the fluids. That ſpaſm does affect the extreme arteries, no one will deny; but it is as abſurd to view this ſpaſm of the extreme veſſels as the cauſe of this diſeaſe, as it would be to impute the effuſion of water that takes place in dropſy, as the cauſe, and not the effect, of primary fever. That it is an effect, needs no comment, as it has been ſtrongly confirmed through practice, that effuſion always ſucceeds inflammation and irregular morbid action, but never occurs before the laſt takes

* For a refutation of Lentor, I refer you to Cullen's Practice.

place, ſo therefore I ſhall, in the preſent caſe, relinquiſh the former opinions, which were founded upon the ſlight baſis of fanciful conjecture and hypotheſis, and aſſume that which may be explained and ſupported by fact and juſt reaſoning. To the profeſſor of the inſtitutes of medicine in this univerſity, do I conceive myſelf indebted for a more accurate knowledge of the proximate cauſe of this diſeaſe, as he has aſcribed it to *morbid action*, affecting particularly the arterial ſyſtem; which to me appears better adapted to explain the phenomena of rheumatiſm, than any hitherto advanced; and I ſhall hereafter adopt this principle, and regulate the method of cure accordingly.

CURE.

Having at length arrived to that part of my diſſertation, which particularly relates to the practice of the healing art, and which requires the greateſt ſagacity, and moſt ſerious deliberation amongſt all phyſicians, I ſhall endeavour to point out the various remedies which have been generally found to be the moſt ſucceſsful in rheumatiſm; and ſhall, in this particular, conduct myſelf agreeable to the nature of the preceding diſeaſe, as hitherto obſerved; though it is not to be ſuppoſed, that the remedies here laid down, will prove beneficial in all conſtitutions or ſtages of this diſeaſe; for after ad-

vancing a long detail and variety of them, we ſtill find that the particular point in queſt of by the reader, is either not mentioned at all, or too partially and ſuperficially to ſerve his purpoſe, and muſt in the end have recourſe to his own judgment, to extricate himſelf out of the immenſe difficulty in which he is involved; ſo, therefore, I would think it moſt adviſeable for a phyſician to be wholly dictated by the indication afforded by a diſeaſe, adminiſter his remedies accordingly, and make himſelf acquainted through what means the patient was formerly either relieved or injured, ſo as to avail himſelf of the one, and relinquiſh the other.

As the precurſors of this diſeaſe evidently point it out to be an inflammatory diſorder, requiring a ſtrict attention to all the various antiphlogiſtic mode of treatment, the patient ſhould be ordered to avoid all ſtimulating aliment, ſuch as may have a tendency to aggravate the diſeaſe; for the period in which it is moſt prevalent, and the violent fever, which in general attends it, all denote the rectitude of this procedure to palliate its violence, and reſcue the unfortunate patient from impending danger.

As the pyrexia attending rheumatiſm is the chief object to be attended to, I ſhall adjuſt the remedies requiſite to the ſtate of the pulſe, and

condition of the ſyſtem, as this ſhould be the ſole guide in attempting to effect a radical cure of all inflammatory diſorders.

In contemplating this, I need not heſitate one moment about the firſt remedy which ſhould be had recourſe to, and as the reduction of the exceſſive morbid excitement accumulated in the arterial ſyſtem, is the moſt important conſideration, I ſhall point out ſuch means, as appear to me, in all caſes, to offer the moſt ſpeedy and certain relief, when judiciouſly adminiſtered. And firſt,

OF BLOOD-LETTING.

Bleeding has innumerable advantages over all the other different modes of depletion; for as Dr. Ruſh juſtly obſerves, in the fourth volume of his Medical Inquiries, that "it abſtracts one of the exciting cauſes, viz. the ſtimulus of the blood from the ſeat of fever," and further illuſtrates the advantages reſulting from it, "by comparing it to the abſtraction of a grain of ſand from the eye, to cure an ophthalmia, when produced through that cauſe." The Doctor again obſerves, that "other depleting remedies are as indirect and circuitous in their operation in curing a fever, as vomits and purges would be to remove an inflammation of the

eye, while the grain of ſand continued to irritate it."

It has been often enquired by phyſicians, what quantity of blood may be drawn in highly inflammatory fevers? In anſwering this, it is to be obſerved,* that in an highly morbid excitable ſtate of the veſſels, a very ſmall quantity of blood will ſuffice to ſupport an equable and juſt circulation, throughout the ſyſtem; hence a greater quantity may be taken, when the blood veſſels labour under this ſtate of excitement and excitability, than otherwiſe; but as no reſtriction, with regard to time and quantity, can be here particularly expreſſed, I ſhall ſtrongly recommend to all young practitioners, the guidance of the pulſe, conſtitution of the patient, and ſtate of the ſyſtem, together with the following appearances of the blood, to regulate their conduct throughout the courſe of this diſeaſe. 1ſt. Diſſolved blood. 2d.† Blood of a ſcarlet colour, without ſeparating into ſerum, or craſſamentum. 3d. Blood in which craſſamentum floats in the ſerum, partly diſſolved, reſembling the waſhings of fleſh in wa-

* Dr. Ruſh makes mention of this in his lectures.

† I have ſeen a caſe of rheumatiſm, where the blood drawn was ſimilar to this, and the patient was bled ſeven times after, before ſizy or buffy coated blood could be produced.

ter. 4th. When the craſſamentum ſinks to the bottom in yellow ſerum. 5th. Craſſamentum floating in the ſerum, which at firſt appears turbid, but ſoon after becomes yellow and tranſparent, by florid red particles being depoſited on the bottom and ſides of the veſſel. 6th. Sizy blood, or that which is covered with a buffy coat. Theſe are facts which have occurred under my own notice, and are alſo corroborated by the obſervations of Dr. Ruſh, throughout his practice, and I am induced to believe, will never lead the moſt ignorant aſtray, if ſtrictly attended to, particularly when bearing in mind, the indication of the pulſe, as this is at all times of immenſe importance.

It is to be obſerved, that in the inflammatory ſtage of chronic rheumatiſm, as heretofore taken notice of, the above remedy is likewiſe to be ſtrictly attended to; for the benefit which is to be derived from it, has oftentimes appeared under my own obſervation, as I have ſeen it adminiſtered frequently, and with the moſt ſalutary effect. As much as I applaud bleeding in many diſorders, it is to be obſerved, that the application of the lancet is by no means adviſable indiſcriminately in a diſeaſe, for though it is a remedy ſo apparently ſimple in its effects, yet demands the niceſt diſcernment to diſtinguiſh when it may be beneficial, and when detrimental; for in the hands of the judicious,

how admirable are its effects, but under the direction of the ignorant in many cases how prejudicial. For as Botallus observes, "it sometimes does no service, either because persons have recourse to it too late, or* use it too sparingly, or commit some error in both these particulars," which is truly just, for if it labours under these disadvantages, how is it possible to judge particularly what benefit or mischief may result from it, when administered thus, in cases which denote the highest inflammatory action; for if a disease requires three or four pounds of blood to be taken away, in order to perform its cure, and but one or two is abstracted, which proves fatal to the patient, it should not be supposed that the disease proved more destructive because bleeding was used; no, by no means, but because it was performed in an improper manner, and perhaps, too, at an unseasonable time. Of the second, or

COLD.

The sedative quality of cold being generally allowed, its effects in this, as well as all other inflammatory diseases, must appear evident to

* This I observed oftentimes in Charleston, South Carolina, during the months of July, August, and September, when there prevailed there, an highly inflammatory fever, which proved very destructive to many persons.—Several physicians had recourse to copious bleeding, and

every one, and as it is our principal object to reduce morbid action, I think that this, after blood-letting has been carried to a ſufficient length, ſo as to leſſen, and not reduce it altogether, is as well calculated to remove the remaining, when properly and judiciouſly adminiſtered, as any remedy with which we are acquainted. Its application, then, to any body that is of a higher temperature than itſelf, muſt be of courſe that of diminiſhing its power, and conſequently moderating its action, which in this or any other inflammatory diſorder, is a very deſirable thing. The good reſulting from the application of this remedy in the inflammatory ſtage of this diſeaſe is daily obſerved, and there came under my own knowledge, a few weeks ago, a caſe where the patient could at any time ſuſpend an attack of this complaint in his arms and wriſts, by lying with them expoſed to the cold air, for a ſhort ſpace of time, and could almoſt as uniformly create a return of the paroxyſm, by covering his arms, and keeping them warm for a few moments.

Cold water applied to the affected part with a napkin, has been found very ſerviceable in this diſeaſe. The cold bath has been much ex-

the depleting plan generally, with almoſt uniform ſucceſs, while others, who bled more ſparingly, found it rather prejudicial than otherwiſe.

tolled in the chronic ſtage of rheumatiſm, but was, and is even at this day, by ſome uſed as a tonic, but how ſhall we reconcile this with the preceding part of this paragraph, where we mentioned the ſedative effects of cold, or its producing direct debility? I anſwer "by this debility being attended with an increaſed excitability of the ſyſtem, and by the expoſure of the body, when it comes out of the bath, to the atmoſphere, which being generally greater than the temperature of the body, produces an increaſed excitement and temporary fever." The adminiſtration of this remedy ſometimes does harm, when not properly uſed; hence the frequent head aches, that attend the improper application of it. When the debility induced, is too great for the farther uſe of the cold, the warm bath may be ſubſtituted in its ſtead, and with advantage. Dr. Sydenham looked upon it as abſolutely neceſſary to keep his patients, in all inflammatory diſeaſes, cool, and in order to effect this, he allowed them to ſit up every day, a few hours, out of bed, as their ſtrength would permit, and conceive it of great conſequence in rendering the loſs of blood, and other cooling remedies more ſucceſsful in their operation. Of the third, or

PURGES.

Coſtiveneſs, generally ſo natural an attendant on moſt inflammatory diſeaſes, requires as well in this, as all others, our moſt ſerious attention, and to obviate which, we think a very requiſite part in the cure of all diſorders, depending upon inflammatory action. I am aware, that purging will be objected to by ſome, owing to the violent pain promoted by the leaſt motion; but notwithſtanding that, I think, when we can conveniently adminiſter them, they ought moſt certainly to be had recourſe to, for they have ſeldom, when of a mild nature, failed to afford ſome relief. I have ſeen very draſtic purgatives, tend rather to induce a return of this diſeaſe, than otherwiſe; while the more cooling, ſuch as ſome of the neutral ſalts, have always had a contrary effect. As we are deſirous to reduce morbid action, and where we are not at full liberty to uſe the lancet freely, either through the fears of our patient, or the prejudice of his friends, we muſt then reſort to this mean, at the ſame time being aware " that while cooling laxatives may be of great utility, draſtic purgatives ſtrictly ſo called, may prove as detrimental.

* Mercury has been recommended in this diſeaſe, but, I believe that it affords little or no benefit, except in the purely chronic ſtage, in which, when a gentle ſalivation is induced, the patient moſt generally finds ſome advantage from its application. I have ſeen the mercury uſed alſo in the form of an ointment to the affected part, when the pain was permanent, and with the ſame good reſulting from it. Of the fourth, or

SWEATING.

This has been ſtrongly recommended by many approved authors, in lieu of bleeding, and is ſtill purſued by phyſicians in general; its application has ſometimes proved beneficial under the direction of many, but often terminate in the moſt ſerious calamity, as it requires the greateſt caution and ſagacity in the adminiſtration of it.

But certain it is, that there are ſome particular ſtages of a diſeaſe, which denotes the propriety of it, and in ſome inſtances of rheumatiſm, may be adminiſtered with conſiderable advantage, after the morbid action of the ſyſtem has been ſufficiently ſubdued, by the exhibition

* For particulars on this head, I refer to Ruſh's Enquiries, vol. 4.

of copious blood-letting, or other depleting remedies.

Notwithſtanding the benefit reſulting from this, it is to be particularly remarked, that, if a diaphoreſis is thought requiſite, it ſhould always be excited with as diluent medicines as poſſible; as thoſe of the ſlighteſt ſtimulant nature, have oftentimes proved more prejudicial to the patient than otherwiſe. In regard to perſpiration* being by many preferred to blood-letting, I muſt acknowledge it does not altogether appear to me ſo advantageous as they aſſert it to be, for I have the inconteſtible proof of practice on both ſides to corroborate my opinion; as I have frequently remarked in inſtances which came under my own inſpection, that perſons who laboured under highly inflammatory diſorders, for ſeveral days ſucceſſively, after every thing of a diaphoretic nature was had recourſe to, have loſt only ten ounces of blood, when a profuſe and almoſt inſtantaneous perſpiration has enſued, and relieved the patient from his oppreſſive malady.

* Perhaps their ſucceſs in a great meaſure, after contending with an inflammatory diſeaſe for ſeveral days in this way, may be preferable to the other mode, becauſe many find it difficult to diveſt themſelves of prejudice, and of courſe, by never experiencing its virtues, are ſtrangers to the benefits reſulting from it.

In the adminiſtration of diaphoretics, we ſhould keep in mind the neceſſity of producing an univerſal perſpiration, and be careful at the ſame time to continue the ſweating ſtage as long as may be requiſite, for by too precipitately checking it by means of cold, we often occaſion all the diſagreeable conſequences, which generally attend an obſtructed perſpiration. In effecting this, the patient ſhould be directed to partake plentifuliy of ſuch diluents, as are generally recommended in the like caſes, for theſe always tend to render it more efficacious and ſafe. Of the fifth, or

BLISTERS.

With reſpect to bliſters, I have but little to ſay, and ſhall only obſerve, that they ought never to be employed, when there remains much morbid action in the ſyſtem, for the ſtimulus occaſioned by them, frequently does harm. Their application, when the pain is fixed to any particular part, is of great utility, provided they are uſed at a proper time. When the morbid action is nearly ſubdued, bliſters act like a charm, in ſubſtituting their own action, and diſſipating the natural pain of the body, and in all ſuch caſes, they ought moſt certainly to be had recourſe to.

To the Profeſſor of the Inſtitutes of Medicine, am I greatly indebted, for moſt of the

principles here laid down; and were I to conclude this diſſertation before acknowledging my obligations to one ſo deſerving, as well as to all the profeſſors of this univerſity, I ſhould deem myſelf unworthy the advantages I have derived from their lectures;—So, therefore, I conceive it a duty incumbent on me, to ſolicit the acceptance of my moſt ſincere thanks—the only means of recompence. To relate the particulars of all your meritorious performances, for the promotion of this ſcience, together with ſuch opinions as you have clearly demonſtrated in your lectures, would require the praiſes of an abler pen. May you continue a living incitement to thoſe principles, which celebrate the preſent age. May all who do themſelves the pleaſure of attending this univerſity, be more auſpicious and aſſiduous in exemplifying and putting into practice, all ſuch juſt principles, as you have inſtilled into their young minds—and may the foſtering hand of the Supreme Being ever attend, cheriſh, and ſupport you in this preſent, as well as life to come, is my moſt ardent wiſh.

FINIS.